

From glowbugs@theporch.com Wed Dec 4 10:39:25 1996
Return-Path: <glowbugs@theporch.com>
Received: from uro (localhost.theporch.com [127.0.0.1])
by uro.theporch.com (8.8.4/AUX-3.1.1)
with SMTP id KAA28504;
Wed, 4 Dec 1996 10:32:28 -0600 (CST)
Date: Wed, 4 Dec 1996 10:32:28 -0600 (CST)
Message-Id: <199612041632.KAA28504@uro.theporch.com>
Errors-To: conard@tntech.campus.mci.net
Reply-To: glowbugs@theporch.com
Originator: glowbugs@theporch.com
Sender: glowbugs@theporch.com
Precedence: bulk
From: glowbugs@theporch.com
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: GLOWBUGS digest 372
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
Status: 0

GLOWBUGS Digest 372

Topics covered in this issue include:

- 1) Re: Not T9... checking xtal current
by rdkeys@csemail.cropsci.ncsu.edu
- 2) Stuff for Sale
by Bob Marsh <bmarsh@hicom.net>
- 3) Re: Not T9...
by Doug <doug@sunrise.alpinet.net>
- 4) Another Mystery
by Bob <KE4Q0K@worldnet.att.net>
- 5) VT conversion list [was: Another Mystery]
by Carl Ratner <artdeco@bway.net>
- 6) Re: Not T9... checking xtal current
by "Claton Cadmus" <aplitech@Spacestar.Net>
- 7) Need a Variac?
by mjsilva@ix.netcom.com (michael silva)
- 8) Re: Another Mystery
by sigcom@juno.com (Stephen M Smith)
- 9) Re: Not T9... checking xtal current --- Great Ideas!
by rdkeys@csemail.cropsci.ncsu.edu
- 10) logo?
by Conard Murray <ws4s@InfoAve.Net>

Date: Tue, 3 Dec 1996 13:39:20 -0500 (EST)

From: rdkeys@csemail.cropsci.ncsu.edu
To: bry@mnsinc.com
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com
Subject: Re: Not T9... checking xtal current
Message-ID: <9612031839.AA106352@csemail.cropsci.ncsu.edu>

> > One thing I've found in the past was that drift and chirp can be
> > caused by too much feedback in the crystal circuit, heating the rock
> > to the point where it becomes unstable....or is in imminent danger
> > of fracture.

> Now HOW do you determine what the xtal current?
> Feedback current etc.?? You can't put a meter in there while there is
> RF present can you?

Typically, you use an RF milliammeter. They are a tad scarce, but I have seen several of them over the years, and grabbed one when I found it. It is also good for use as a neutralization indicator.

The old dial lamp trick (50ma dial lamp or such) lets you see the relative xtal current, and acts as a fuse. Put the dial lamp in the ground side of the xtal holder and adjust for maximum brightness, consistent with good keying. Then use that brightness as a reference point for later tuning.

Late 30's handbooks should cover this to some extent.

Bob/NA4G

Date: Tue, 03 Dec 1996 13:30:19 -0500
From: Bob Marsh <bmarsh@hicom.net>
To: NJ-QRP Listserver <nj-qrp@nicol.jvnc.NET>,
Subject: Stuff for Sale
Message-ID: <32A471BB.6574@hicom.net>

Hi Everyone,

I have the following equipment for sale/trade:

Heathkit HW-16: I replaced several caps and the rectifier diodes in the power supply, but still have the originals caps. There appears to be some older work done on it as well. The rig transmits & receives OK, but has a chirp. (I understand that's pretty common with these rigs) Cosmetically clean except for paint nicks on edges. Has copy of the manual and new tubes (from AES) in the TX. \$90.00 OBO

Heathkit HG-10 VFO: Set up for use with the HW-16. I reversed a mod that placed the matching resistors outside the case in the back. As a result, there are some extra holes in the back. Can't say what other mods may have been done, but it does work with the HW-16 OK. Looks cosmetically good. (better than the HW-16) Comes with manual copy. \$85.00 OBO

Heathkit SB-610 Station Monitor: It appears to be in good condition. I had it working (on TX) with my Kenwood TS-850. It showed the CW waveform OK. No mods & VG to excellent cosmetically. Has original manual. I'm not sure I want to sell this, since I may hook it up to my SB-301/401. If it's worth it to me, though, I'll let it go. Make me an offer.

Johnson Challenger (80 - 2 meter CW/AM TX): This rig is complete with original knobs, etc. The case is scratched and may need refinishing, and the rubber feet along with several mounting screws are missing. I replaced the power cord with another 2 conductor job and originally brought it back up with a variac. It loaded up OK on 40m (the only crystal I have in the amateur band) and I worked a few stations with it a while ago. Signal reports were OK, but I think this guy has a chirp too. It has a copy of the operators manual. \$75.00 OBO

Hallicrafters S-118 Receiver: This appears to work OK, but has a broken IF Xformer slug. (I admit it - I broke it trying to do an alignment). cosmetically it could use some work, but the front panel looks pretty good. It has a copy of the manual with it. \$15.00

Globe HG-303 Transmitter: 80 - 10 meter CW This guy looks like it fell off a truck (literally). The meter is broken, it's missing the final (a 6146), the chassis is bent and is generally in pretty bad shape. Too bad, cuz it's a nice little rig (tiny, too). I'm offering this as a parts rig unless you have more patience than me. No documentation. \$10.00

I'm looking to get a fair price for this stuff, so I'll consider any reasonable offer. If you think they're too high, make an offer and let me know why. Prices DO NOT include shipping. I'm looking for:

- Ten-Tec equipment (Tube or SS)
- QRP Kits/Equipment/Rigs
- 2m HT modifiable for MARS Freqs
- Whatever I haven't thought of yet

Thanks for the bandwidth.

73 de Bob/KB2SGM

Date: Tue, 03 Dec 1996 11:28:45 -0700
From: Doug <doug@sunrise.alpinet.net>
To: glowbugs@theporch.com
Subject: Re: Not T9...
Message-ID: <32A4715D.2A6F@alpinet.net>

>
> Now HOW do you determine what the xtal current?
> Feedback current etc.?? You can't put a meter in there while there is
> RF present can you?

>
Hi Brian and the crew...I've used a small milliammeter on the low
(ground) side of the crystal, also have put 100 ohm precision resistor
in the ckt...same place and read the voltage across the resistor.
The current at this point consists of the DC component of grid current
and the AC component of the feedback voltage. A VTVM works nicely for
this job, reads both. However, the primary current is the grid flow,
so it has a direct relationship to how hard the tube is working and
also, the amount of feedback coupled to the crystal path, either thru
interelement coupling back to the crystal, or a reactive tap back from
the plate circuit in the case of a triode oscillator.

I've used to pilot bulb trick...works pretty well and keeps me from
buying new crystals. I think the one most common for me was the good
old Number 47 pilot bulb, but it'll take 100ma to make it bright...and
that will signal the end of your rock. So, I think some smaller ones
might be more appropriate.

The fellow who wrote the other day about his rig's chirp changing when
he grabbed the crystal might be a candidate for high drive levels...
just something to check out.

Take Care

Doug, K7YD
Livingston, MT

Date: Tue, 3 Dec 1996 19:14:52 +0000
From: Bob <KE4QOK@worldnet.att.net>
To: glowbugs@theporch.com
Subject: Another Mystery
Message-ID: <19961203191450.AAA7460@LOCALNAME>

Hi Guys,

Got another mystery from the tube box. It is either VT-191 or VT-197. The number is worn a bit. This is the strangest looking tube I have ever seen. It has 4 pins in a tee shaped configuration and is very short and dome shaped. It reminds me a bit of a flying saucer. What was this little guy used for anyway??

73 es TNX
KE4QOK
Bob
136 Hermitage Rd.
Newport News, Va. 23606
KE4QOK@worldnet.att.net [try here first]
bob.roach@sourcebbs.com
(757)930-0348

Date: Tue, 3 Dec 1996 14:31:28 -0500 (EST)
From: Carl Ratner <artdeco@bway.net>
To: glowbugs@theporch.com
Subject: VT conversion list [was: Another Mystery]
Message-ID: <2.2.16.19961203143454.1e1f6750@bway.net>

At 01:16 PM 12/3/96 -0600, Bob wrote:

>Hi Guys,
>
>Got another mystery from the tube box. It is either VT-191 or
>VT-197. The
>number is worn a bit. This is the strangest looking tube I have ever
>seen .
>It has 4 pins in a tee shaped configuration and is very short and dome
>shaped. It reminds me a bit of a flying saucer.
>What was this little guy used for anyway??

Here's a VT conversion list, original source unknown:

--73

Carl

VT-1.....WE-203A
VT-2.....WE-205B
VT-3.....Obsolete

VT-4A....Obsolete
VT-4B....Commercial 211
VT-4C....JAN 211
VT-5.....WE-215A
VT-6.....212A
VT-7.....WX-12
VT-8.....UV-204
VT-10....Obsolete
VT-11....Obsolete
VT-12....Obsolete
VT-13....Obsolete
VT-14....Obsolete
VT-16....Obsolete
VT-17....860
VT-18....Obsolete
VT-19....861
VT-20....Obsolete
VT-21....Obsolete
VT-22....204A
VT-23....Obsolete
VT-24....864
VT-25....10
VT-25A...10 Special
VT-26....22
VT-27....30
VT-28....24, 24A
VT-29....27
VT-30....01A
VT-31....31
VT-32....Obsolete
VT-33....33
VT-34....207
VT-35....35/51
VT-36....36
VT-37....37
VT-38....38
VT-39....869
VT-39A...869A
VT-40....40
VT-41....851
VT-42....872
VT-42A...872A
VT-43....845
VT-44....32
VT-45....45
VT-46....866
VT-46A...866A
VT-47....47

VT-48....41
VT-49....39/44
VT-50....50
VT-51....841
VT-52....45 Special
VT-53....VT-42A
VT-54....34
VT-55....865
VT-56....56
VT-57....57
VT-58....58
VT-60....850
VT-62....801,801A
VT-63....46
VT-64....800
VT-65....6C5
VT-65A...6C5G
VT-66....6F6
VT-66A...6F6G
VT-67....30 Special
VT-68....6B7
VT-69....6D6
VT-70....6F7
VT-72....842
VT-73....843
VT-74....5Z4
VT-75....75
VT-76....76
VT-77....77
VT-78....78
VT-80....80
VT-83....83
VT-84....84/6Z4
VT-86....6K7
VT-86A...6K7G
VT-86B...6K7GT
VT-87....6L7
VT-88....6L7G
VT-88A...6R7
VT-88B...6R7GT
VT-89....89
VT-90....6H6
VT-90A...6H6GT
VT-91....6J7
VT-91A...6J7GT
VT-92....6Q7
VT-92A...6Q7G
VT-93....6B8

VT-93A...6B8G
VT-94....6J5
VT-94A...6J5G
VT-94B...6J5 Special
VT-94C...6J5G
VT-94D...6J5GT
VT-95....2A3
VT-96....6N7
VT-96B...6N7 Special
VT-97....5W4
VT-98....6U5/6G5
VT-99....6F8G
VT-100...807
VT-100A..807 modified
VT-101...837
VT-102...Canceled
VT-103...6SQ7
VT-104...12SQ7
VT-105...6SC7
VT-106...803
VT-107...6V6
VT-107A..6V6GT
VT-107B..6V6G
VT-108...450TH
VT-109...2051
VT-111...5BP4,1802P4
VT-112...6AC7,1852
VT-114...5T4
VT-115...6L6
VT-115A..6L6G
VT-116...6SJ7
VT-116A..6SJ7GT
VT-116B..6SJ7Y
VT-117...6SK7
VT-117A..6SK7GT
VT-118...832
VT-119...2X2/879
VT-120...954
VT-121...955
VT-122...530
VT-123...RCA A-5586
VT-124...1A5GT
VT-125...1C5GT
VT-126...6X5
VT-126A..6X5G
VT-126B..6X5GT
VT-127...Special
VT-127A..Special

VT-128...1630/A-5588
VT-129...304TL
VT-130...250TL
VT-131...12SK7
VT-132...12K8 Special
VT-133...12SR7
VT-134...12A6
VT-135...12J5GT
VT-135A..12J5
VT-136...1625
VT-137...1626
VT-138...1629
VT-139...VR150-30
VT-140...1628
VT-141...531
VT-142...WE-39DY1
VT-143...805
VT-144...813
VT-145...5Z3
VT-146...1N5GT
VT-147...1A7GT
VT-148...1D8GT
VT-149...3A8GT
VT-150...6SA7
VT-150A..6SA7GT
VT-151...6A8G
VT-151B..6A8GT
VT-152...6K6GT
VT-152A..6K6G
VT-153...12C8 Special
VT-154...814
VT-155...Special
VT-156...Special
VT-157...Special
VT-158...Special
VT-159...Special
VT-160...Special
VT-161...12SA7
VT-162...12SJ7
VT-163...6C8G
VT-164...1619
VT-165...1624
VT-166...371A
VT-167...6K8
VT-167A..6K8G
VT-168A...6Y6G
VT-169...12C8
VT-170...1E5-GP

VT-171...1R5
VT-171A..1R5 Loctal
VT-172...1S5
VT-173...1T4
VT-174...3S4
VT-175...1613
VT-176...6AB7,1853
VT-177...1LH4
VT-178...1LC6
VT-179...1LN5
VT-180...3LF4
VT-181...7Z4
VT-182...3B7/1291
VT-183...1R4/1294
VT-184...VR90-30
VT-185...3D6/1299
VT-186...Special
VT-187...575A
VT-188...7E6
VT-189...7F7
VT-190...7H7
VT-191...316A
VT-192...7A4
VT-193...7C7
VT-194...7J7
VT-195...1005
VT-196...6W5G
VT-197A..5Y3GT/G
VT-198A..6G6G
VT-199...6SS7
VT-200...VR-105-30
VT-201...25L6
VT-201C..25L6GT
VT-202...9002
VT-203...9003
VT-204...HK24G
VT-205...6ST7
VT-206A..5V4G
VT-207...12AH7GT
VT-208...7B8
VT-209...12SG7
VT-210...1S4
VT-211...6SG7
VT-212...958
VT-213A..6L5G
VT-214...12H6
VT-215...6E5
VT-216...816

VT-217...811
VT-218...100TH
VT-219...Cancled
VT-220...250TH
VT-221...3Q5GT
VT-222...884
VT-223...1H5GT
VT-224...RK-34
VT-225...307A
VT-226...3EP1/1806P1
VT-227...7184
VT-228...8012
VT-229...6SL7GT
VT-230...350A
VT-231...6SN7GT
VT-232...E-1148
VT-233...6SR7
VT-234...HY-114B
VT-235...HY-615
VT-236...836
VT-237...957
VT-238...956
VT-239...1LE3
VT-240...710A
VT-241...7E5/1201
VT-243...7C4/1203A
VT-244...5U4G
VT-245...2050
VT-246...918
VT-247...6AG7
VT-248...1808P1
VT-249...1006
VT-250...EF50
VT-251...441
VT-252...923
VT-254...304TH
VT-255...705A
VT-256...ZP486
VT-257...K-7
VT-259...829
VT-260...VR75-30
VT-264...3Q4
VT-266...1616
VT-267...578
VT-268...12SC7
VT-269...717A
VT-277...417
VT-279...GY-2

VT-280...C7063
VT-281...HY-145ZT
VT-282...ZG489
VT-283...QF-206
VT-284...QF-197
VT-285...QF-200C
VT-286...832A
VT-287...815
VT-288...12SH7
VT-289...12SL7GT

Date: Tue, 3 Dec 1996 16:37:09 -0600
From: "Claton Cadmus" <aplitech@Spacestar.Net>
To: "Multiple recipients of list" <glowbugs@theporch.com>
Subject: Re: Not T9... checking xtal current
Message-ID: <199612032238.QAA25566@Spacestar.Net>

Bob wrote concerning xtal current measurement

> Typically, you use an RF milliammeter. They are a tad scarce, but
> I have seen several of them over the years, and grabbed one when I found
> it. It is also good for use as a neutralization indicator.
>
> The old dial lamp trick (50ma dial lamp or such) lets you see the
relative
> xtal current, and acts as a fuse. Put the dial lamp in the ground
> side of the xtal holder and adjust for maximum brightness, consistent
> with good keying. Then use that brightness as a reference point for
> later tuning.

Adding a photocell, appropriate resistor and a meter you can make an rf
milliammeter using a dial lamp. Use a DC supply and milliammeter to
calibrate the meter indication as the photocell reads the lamp brightness.
Make sure you put the thing in a light tight box. I seem to remember
seeing an article on an rf wattmeter that used this same construction
technique.

Anyway, my two cents on a handy cheap piece o' test gear.

Claton Cadmus |73 de KA0GKC
Application Technologies Inc. |ARRL, QRP-ARCI, NorCal
Ph. (612)926-8886 |ARCC, MNQRP Society
Fax (612)926-8545 |ka0gkc@ka0gkc.ampr.org
E-mail clat@spacestar.net |ka0gkc@wb0gdb.#stp.mn.us

Date: Tue, 3 Dec 1996 18:29:56 -0800
From: mjsilva@ix.netcom.com (michael silva)
To: glowbugs@theporch.com
Subject: Need a Variac?
Message-ID: <199612040229.SAA12416@dfw-ix1.ix.netcom.com>

Hi all,

I just purchased a variac from the person below and it arrived as advertised and in good shape, so when I saw his new "ad" on rec.radio.swap I thought I'd take the liberty to post it here, since variacs can be hard to find at a decent price. Remember, email him, not me.

73,
Mike, KK6GM

<< BEGIN POST >>

I have 5 bench variacs for sale, made by Superior Electric. Each has been totally refurbished as follows: new cord, cleaning and relubricating, repainting case as necessary, wiper aligned, and tested at full output. They are electrically "excellent," some wear on the dial, otherwise cosmetically clean.

The units are 7.5 amp, most 0-135 volts, some 0-140 volts.

Price is \$30 FOB San Luis Obispo, CA. (93430); shipping weight is 15 pounds.

Please Email if interested.

73,
Jeff N6MNI

jrininger@aol.com

<< END POST >>

Date: Wed, 04 Dec 1996 00:53:37 EST

From: sigcom@juno.com (Stephen M Smith)
To: glowbugs@theporch.com
Subject: Re: Another Mystery
Message-ID: <19961203.182129.8287.1.sigcom@juno.com>

On Tue, 3 Dec 1996 13:16:38 -0600 (CST) Bob <KE4QOK@worldnet.att.net>
writes:

>Hi Guys,

>

>Got another mystery from the tube box. It is either VT-191 or VT-197.

(snipped)

Well, finally one I can answer. That little devil was used in an IFF set (Identification, Friend or Foe) also known as a "tail-end charlie" in WWII aircraft. I think it is a dual triode and was used as a UHF, self-excited oscillator, around 400 MHz (MC), also used as part of the receiver, I think. I remember seeing them for sale by the surplus outfits and some conversion articles in the 50s and 60s.

73.....Steve, WB6TNL

Date: Wed, 4 Dec 1996 11:17:02 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: aplitech@Spacestar.Net
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com
Subject: Re: Not T9... checking xtal current --- Great Ideas!
Message-ID: <9612041617.AA106592@csemail.cropsci.ncsu.edu>

> Adding a photocell, appropriate resistor and a meter you can make an rf
> milliammeter using a dial lamp. Use a DC supply and milliammeter to
> calibrate the meter indication as the photocell reads the lamp brightness.
> Make sure you put the thing in a light tight box. I seem to remember
> seeing an article on an rf wattmeter that used this same construction
> technique.

>

> Anyway, my two cents on a handy cheap piece o' test gear.

>

> Claton Cadmus |73 de KA0GKC
> E-mail cla@spacestar.net |ka0gkc@wb0gdb.#stp.mn.us

Beautiful Idea! Somewhere back in my foggy greymatters I vaguely remember this idea somewhere, too. Thanks for the memory refresher! I have a Behemoth Hartley (using 833 or 849) that I want to get up this season, with real OT crescent fan style meters, of which I have ma meter and volt meters,

but no RF current meter..... Methinks this will make a dandy RF ammeter using one of the old crescent fan meters in the 0-1ma range, maybe, with something like 4 cells in parallel placed around an auto dome lamp or one of the 100ma dial lamps or something a little larger..... hmmmmm.....

It could be potted up or sealed up into a ``mysterious black box'' that would look for all in the world like some ol' electronic gilliwidge, and not be out of place on a Hartley..... hmmmmm.....

Years ago, I did this with some old lab spectrophotometers, and it worked great, but required a very sensitive meter movement and only worked for a few wavelengths of light. The puny output from a spectrophotometer light beam was enough to work well on a 10 microamp meter movement. 100 microamp movements are common. Methinks it would work nicely, if enough power was passed through the lamp to make it glow rather extensively. Lessee, if I want about 5 or so watts output, then a dial lamp might be adequate, or if I wanted 25 or so watts output, then an auto dome light might be appropriate..... hmmmmm..... You might wanta soak about 1 or so percent of your output power into the detector assembly.....hmmmmm.....

There was a neat little antenn tuner power indicator, made from dial lamps in the 1941 handbook, for the entry level breadboard rig. Maybe something from that could be adapted.....hmmmmm.....

Ideas, galore!

See if you can find that article, somewhere, or maybe someone has a pointer thereto....

Gee....., ain't Glowbuggin' fun.....! (:+}}.....

73/ZUT DE NA4G/Bob UP

Date: Wed, 04 Dec 1996 10:04:38 -0600
From: Conard Murray <ws4s@InfoAve.Net>
To: glowbugs@theporch.com
Subject: logo?
Message-ID: <2.2.32.19961204160438.0067e30c@infoave.net>

With all the talk on BA for a logo, I thought maybe we needed one too.
Anyone with any ideas?
73 de Conard ws4s

Conard Murray WS4S NNN0UTN WDX4CQ ex KA4JEC AFA2JZ RC196 Glowbugs

Listowner

217 Dyer Avenue, Cookeville, TN 38501 615-526-4093

ws4s@infoave.net

<><

Wise men still seek Him

<><

End of GLOWBUGS Digest 372
